



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0393; Product Identifier 2018-NM-010-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. This proposed AD was prompted by reports of loose, worn, or missing attachment bolts for the main landing gear (MLG) center door assemblies. This proposed AD would require repetitive detailed inspections of the forward and aft MLG center door assembly attachments for loose, missing, damaged, or bottomed out attachment bolts; any wear to the retention clip assemblies as applicable; and applicable on-condition actions. This proposed AD would also provide an optional terminating action for the repetitive inspections. Since this is a rotatable parts issue, the applicability of this AD has been expanded beyond the airplanes listed in the related service bulletin to include all airplanes on which the MLG center door assemblies may be installed. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0393.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0393; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Alan Pohl, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3527; email: alan.pohl@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0393; Product Identifier 2018-NM-010-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received reports of loose, worn, or missing attachment bolts of the MLG center door assemblies. One operator reported the departure and loss of the center and inboard door assemblies from the left MLG during flight on a Model 737-800 series airplane. The airplane had accumulated 28,279 flight cycles when the incident occurred. There have also been several reports of the two inboard bolts that attach the MLG center door assembly to the shock strut cylinder being loose or missing. One operator reported loose, worn, and missing attachment bolts on several airplanes that had accumulated from 15,921 to 31,673 flight cycles. This condition, if not corrected, could result in departure of the center and inboard door assemblies, subsequent damage to the main flap and horizontal stabilizer, and loss of control of the airplane.

To support operations, many operators have put processes in place that, given certain conditions, allow them to rotate or transfer parts or equipment within their fleets

to different aircraft than what is defined in the manufacturer's type design. We have determined that the parts or equipment subject to the unsafe condition addressed by this proposed AD may have been rotated or transferred in this manner, due to similarity with parts or equipment not subject to the unsafe condition addressed by this proposed AD. Therefore, this proposed AD includes all Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes.

Related Service Information under 1 CFR part 51

We reviewed Boeing Special Attention Service Bulletin 737-52-1170, Revision 1, dated December 19, 2017 ("BSASB 737-52-1170, R1"). The service information describes procedures for repetitive detailed inspections of the forward and aft MLG center door assembly attachments for loose, missing, damaged, or bottomed out attachment bolts; and any wear to the retention clip assemblies as applicable; and applicable on-condition actions. The service information also describes procedures for modification of the MLG center door assembly retention clip assemblies as an optional terminating action for the repetitive inspections. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishment of the actions identified as "RC" (required for compliance) in the Accomplishment Instructions of BSASB 737-52-1170, R1, described previously, except as discussed under "Differences Between

this Proposed AD and the Service Information,” and except for any differences identified as exceptions in the regulatory text of this proposed AD.

For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0393.

Differences Between this Proposed AD and the Service Information

The effectivity of BSASB 737-52-1170, R1, is limited to Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes line numbers 1 through 6724 inclusive and 6736. The affected MLG center door assemblies are rotatable parts, and we have determined that these parts could later be installed on airplanes that were initially delivered with acceptable MLG center door assemblies, thereby subjecting those airplanes to the unsafe condition. Therefore, the applicability of this proposed AD includes all Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes to address the rotability of these parts. This difference has been coordinated with Boeing.

Where BSASB 737-52-1170, R1, specifies Group 3 airplanes as having line numbers 4275 through 6724 inclusive, and 6736, this proposed AD specifies Group 3 airplanes as line number 4275 through any airplane with an original Certificate of Airworthiness or an original Export Certificate of Airworthiness dated “on or before the effective date of this AD,” as specified in paragraph (c)(3) of this proposed AD.

For Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes with an original Certificate of Airworthiness or an original Export Certificate of Airworthiness dated after the effective date of the final rule, operators would not be required to complete the actions described in paragraph (g) of this proposed AD, but would be required to comply with the parts installation prohibition in paragraph (j) of this proposed AD.

Costs of Compliance

We estimate that this proposed AD affects 1,814 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	2 work-hours X \$85 per hour = \$170 per inspection cycle	\$0	\$170 per inspection cycle	\$308,380 per inspection cycle

Estimated costs for optional terminating action

Action	Labor cost	Parts cost	Cost per product
Modification	Up to 6 work-hours X \$85 per hour = Up to \$510	\$2,900	Up to \$3,410

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

According to the manufacturer some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2018-0393; Product Identifier 2018-NM-010-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category, as specified in paragraphs (c)(1) through (c)(4) of this AD.

(1) Airplanes in Group 1, and in Group 2, Configuration 1, as identified in Boeing Special Attention Service Bulletin 737-52-1170, Revision 1, dated December 19, 2017 (“BSASB 737-52-1170, R1”).

(2) Airplanes in Group 2, Configuration 2, as identified in BSASB 737-52-1170, R1.

(3) Airplanes in Group 3, as identified in BSASB 737-52-1170, R1, except where this service bulletin specifies the groups as line numbers 4275 through 6724 inclusive, and 6736, this AD specifies those groups as line number 4275 through any line number of an airplane with an original Certificate of Airworthiness or an original Export Certificate of Airworthiness dated on or before the effective date of this AD.

(4) All Model 737-600, -700, -700C, -800, -900 and -900ER series airplanes with an original Certificate of Airworthiness or an original Export Certificate of Airworthiness dated after the effective date of this AD.

(d) Subject

Air Transport Association (ATA) of America Code 52, Doors.

(e) Unsafe Condition

This AD was prompted by reports of loose, worn, or missing attachment bolts for the main landing gear (MLG) center door assemblies. We are issuing this AD to address loose, missing, damaged, or bottomed out attachment bolts, and any wear to the retention clip assemblies, which could result in departure of the center and inboard door assemblies, subsequent damage to the main flap and horizontal stabilizer, and loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

For airplanes identified in paragraphs (c)(1), (c)(2), or (c)(3) of this AD: Except as required by paragraph (h) of this AD, at the applicable time specified in Tables 1 through 6, as applicable, of paragraph 1.E., Compliance, of BSASB 737-52-1170, R1, do all applicable actions identified as “RC” (required for compliance) in, and in accordance with, the Accomplishment Instructions of BSASB 737-52-1170, R1.

(h) Exceptions to Service Information Specifications

For purposes of determining compliance with the requirements of this AD: Where BSASB 737-52-1170, Revision 1, uses the phrase “the original issue date of this service bulletin,” this AD requires using “the effective date of this AD.”

(i) Optional Terminating Action for Repetitive Inspections

Accomplishment of the modification of the MLG center door retention clip assemblies specified in Part 5 of the Accomplishment Instructions of BSASB 737-52-1170, R1, terminates the repetitive inspections required by paragraph (g) of this AD for that MLG center door retention clip only. The requirements of paragraph (j) of this AD continue to apply.

(j) Parts Installation Limitation

As of the effective date of this AD, no person may install an MLG center door assembly on any airplane unless all actions for Group 3 airplanes identified as RC in, and in accordance with, the Accomplishment Instructions of BSASB 737-52-1170, R1, have been accomplished on that MLG center door assembly within the compliance times specified in Tables 4, 5, and 6, as applicable, of paragraph 1.E., Compliance, of BSASB 737-52-1170, R1.

(k) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 737-52-1170, dated July 29, 2014.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the

manager of the certification office, send it to the attention of the person identified in paragraph (m)(1) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Except as required by paragraph (h) of this AD: For service information that contains steps that are labeled as RC, the provisions of paragraphs (l)(4)(i) and (l)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(m) Related Information

(1) For more information about this AD, contact Alan Pohl, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3527; email: alan.pohl@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on April 27, 2018.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

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